UNITED STATES PATENT AND TRADEMARK OFFICE

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10/749,727	12/30/2003	Arnavkumar M. Pathan	CISCP360/320000	9062

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EXAMINER
MEHRA, INDER P

ART UNIT	PAPER NUMBER
2617	

NOTIFICATION DATE	DELIVERY MODE
08/18/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@wavsip.com

	Application No.	Applicant(s)
Office Action Summary	10/749,727	PATHAN ET AL.
	Examiner	**Art Unit**	
	INDER P. MEHRA	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _04 June 2010_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-5,7-13,15-19,21-30 and 32-38_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-5, 7-13, 15-19, 21-30, and 32-38_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _18 December 2002_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   This office action is in response to amendment dated: 6/4/2010. Based on this

application, claims 1-5, 7-13, 15-19, 21-30, and 32-38 are pending. Claims 14, 20, and 31 have been

cancelled. Claims 1, 8-13, 20-21, 32-34 and 37 are amended , and new claim 38 is added.

Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or
> described as set forth in section 102 of this title, if the differences between the subject
> matter sought to be patented and the prior art are such that the subject matter as a whole
> would have been obvious at the time the invention was made to a person having ordinary
> skill in the art to which said subject matter pertains. Patentability shall not be negatived
> by the manner in which the invention was made.
>
> The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459
> (1966), that are applied for establishing a background for determining obviousness under
> 35 U.S.C. 103(a) are summarized as follows:
> 1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness

or nonobviousness.

       This application currently names joint inventors. In considering patentability of the

claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c)

and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3.   Claims 1-2, 4-5, 9-13, 21, 32-34 and 37-38 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Dorenbosch et al (US Pub. No. 2005/0048977), hereinafter, '977 in view of

Jeyaseelan et al (US Pub. No. 2005/0070275), hereinafter, Jeyaseelan.

For claims 1, 10 and 32- 34 and 37-38, '977 teaches, a method ('977 teaches a method of

triggering handover (roaming) from WLAN to WAN in a network refer to abstract and para:

[0002] in reference to figs. 7-11; device or apparatus (SU 306, fig. 3), (see claims 34 and 37)

comprising:

detecting by a network device a speed of the network device; ('977 teaches subscriber

device detecting of speed, refer to paras: [abstract], and [0009] and ;

instructions (see claim 32); (refer to '977 paragraph [0027]);

means for detecting speed , (see claim 33),('977 teaches accelerometer, refer to para

[0010]);

means for ascertaining one or more threshold values, (see claim 33) ('977 teaches unit

306, para: [0009]);

means for roaming (see claim 33), ('977 teaches unit 306 for roaming triggering, para:

[0042]);

ascertaining by the network device one or more threshold values corresponding to one or

more trigger events and the detected speed of the network device from a profile configured at the

network device, wherein the profile includes a plurality of sets of threshold values, each of the

plurality of sets of threshold values including one or more threshold values corresponding to one

or more trigger events, wherein each of the plurality of sets of threshold values corresponds to a

different set of one or more speeds of a plurality of speeds,

('977 teaches detecting a triggering event, which is the detection of a wireless local area

network border cell (210), fig. 2, or a degradation in signal quality (same as ascertaining

threshold value, such as signal strength or degradation of quality), refer to para: [0009] and

abstract); wherein one or more threshold values have been configured at the network device

('977 teaches, if the speed and/or displacement of the device exceeds a predetermined threshold

(predetermined threshold value is same as configured at the network device), refer to para:

[0009]); (It is important to note that this routine is executed periodically which obviously

generates and updates profile of values successively corresponding to speed and events, refer to

para: [0037]. '977, further, teaches each of threshold values corresponding to different sets of

speeds, and triggering events, refer to fig. 8 step 812 and fig. 9 step 912).

a processor and a memory (see claims 34 and 37), and computer readable medium storing

instructions, see claim 32); ('977 teaches processor and memory, refer para: [0027]);

triggering roaming of the network device when one of the trigger values associated with

one of the trigger events is equal to or exceeds one of the threshold values that corresponds to

the one of the trigger events and the detected speed of the network device ('977 teaches

degradation of quality level or detection of a wireless local area network border cell (210) , fig.

2, (same as trigger values) when triggering event happens. Determines the speed and/or

displacement of the device (306), and conducts any present and subsequent calls via the second

wireless communication system if the speed and/or displacement of the device exceeds a

predetermined threshold , refer to [abstract]).

'977 does not teach the following limitation, which is disclosed by Jeyaseelan, as

follows:

ascertaining by the network device one or more trigger values associated with the one or

more trigger events (Jeyaseelan teaches timer 104 (counter performs as roaming timer associated

with events, paragraph 0020) at the expiry of which roaming starts (trigger value); and

Jeyaseelan discloses threshold values such as at least one of maximum data retry count

(step 315, fig. 3), maximum number of beacons missed (step 305, fig. 3), maximum data rate

shift (steps 325 and 335, fig. 3), or signal strength (step 345, fig. 3) may vary according to the

speed of a mobile device, refer to fig. 3. This reads on following limitation:

wherein the threshold values include at least one of maximum data retry_ count,

maximum number of beacons missed, or maximum data rate shift.

wherein the threshold values include minimum signal strength and wherein the trigger

events include signal strength;(see claim 38), Jeyaseelan discloses threshold values such as,

minimum strength threshold value is trigger event, refer to figs. 3-4 and para: [0037]

It would have been obvious to the person of ordinary skill in the art at the time of the

invention to use the capability of ascertaining one or more trigger values associated with one of

the trigger events as taught by Jeyaseelan. This could be implemented by wireless

communication device of '977. '977 suggested the methods to determine as to when the mobile

wireless communication device should handover, refer to abstract . The motivation for using this

capability was to improve handover and registration behavior between WLANs and WANs and

battery life of a mobile device when a user was stationary in border cells.

For claim 21, '977 teaches, a method of triggering roaming in a network device ('977

teaches a method of triggering handover (roaming) from WLAN to WAN in a network refer to

abstract and para: [0002] in reference to figs. 1-2; comprising:

detecting a speed of the network device ('977 teaches detection of speed, refer to paras:

[abstract, 0009 and 0020]); and ;

--- one or more threshold values correspond to the speed of the detected speed of the

network device ('977 teaches one or more threshold values corresponding to speed of device,

refer to abstract, where '977 teaches, determining the speed and/or displacement of the device

(306), and conducts any present and subsequent calls via the second wireless communication

system if the speed and/or displacement of the device exceeds a predetermined threshold).

triggering roaming when one of the trigger values associated with one of the trigger

events is equal to or exceeds one of the threshold values that correspond to the one of

the trigger events and the detected speed of the network device ('977 teaches degradation of

quality level or detection of a wireless local area network border cell (210) , fig. 2, (same as

trigger values) then handover triggering event happens. Determines the speed and/or

displacement of the device (306), and conducts any present and subsequent calls via the second

wireless communication system if the speed and/or displacement of the device exceeds a

predetermined threshold , refer to [abstract]).

'977 does not teach the following limitation, which is disclosed by Jeyaseelan, as

follows:

Modifying one or more threshold values corresponding to one or more trigger events---;

(Jeyaseelan teaches modifying counter (timer) values) to mark new threshold, refer to para:

[0019] and step 240, fig. 2), and steps 330, 340, 350, 360); Jeyaseelan teaches roaming timer

may be set on any value based on criteria, or set to new value modifying values), paragraphs

[0013] or [0019]).

ascertaining one or more trigger values associated with the one or more trigger

events (Jeyaseelan teaches timer 104 (counter performs as roaming timer associated with events,

paragraph 0020) at the expiry of which roaming starts (trigger value); and '977 teaches

modifying counter (timer) values) to mark new threshold, as new trigger values to trigger event,

such as handover, refer to para: [0019] and step 240, fig. 2), and steps 330, 340, 350, 360);

It would have been obvious to the person of ordinary skill in the art at the time of the

invention was made to have modified the capability of '977 by ascertaining one or more trigger

values associated with one of the trigger events; and modifying one or more threshold values--,

as taught by Jeyaseelan. This could be implemented by wireless communication device of '977.

'977 suggested the methods to determine events as to when the mobile wireless communication

device should handover, refer to abstract . The motivation for using this capability was to

improve handover and registration behavior between WLANs and WANs and battery life of a

mobile device when a user was stationary in border cells, refer to [abstract]of '977.

For claim 2, '977 in view of Jeyaseelan teaches all the limitations of subject matter , as

applied to claim 1, as above.

In addition, '977 teaches the following limitations:

"wherein the network device is a Mobile Node implemented in a 802.11 environment".

('977 teaches 802.11 environment for mobile device in WLAN network, refer to para: [0011]).

For claim 4, '977 in view of Jeyaseelan teaches all the limitations of subject matter , as applied to claim 1, as above. In addition, '977teaches the following limitations:

wherein roaming is triggered when the network device has reached or is nearing a perimeter of a coverage area of an Access Point to which the network device has associated or a Foreign Agent via which the network device has registered with its Home Agent ('977 teaches roaming is triggered when mobile device is in border cell, refer to [abstract]).

For claim 5, '977 in view of Jeyaseelan teaches all the limitations of subject matter , as applied to claim 1, as above. In addition, '977 teaches the following limitations:

wherein roaming is triggered when the network device is no longer within a coverage area of an Access Point to which the network device has associated or a Foreign Agent via which the network device has registered with its Home Agent ('977 teaches, Normally, before a user is leaving the WLAN coverage area 104, the user's SU first detects a border cell 210. The SU 106 starts the cellular stack and begins to register with the cellular network 102 upon detecting the border cell 210 information so that the call is handed over in an adequate timeframe. By the time the SU 106 is out of range of the WLAN coverage area 104, the call should be transferred to the WAN 102, refer to [0007]).

For claim 9, '977 in view of Jeyaseelan teaches all the limitations of subject matter , as applied to claim 1. In addition, Jeyaseelan teaches the following limitations:

wherein the trigger events include at least one of maximum data retry count is exceeded, maximum number of beacons missed (step 305, fig. 3) is exceeded, data rate shift, (Jeyaseelan teaches trigger event (roaming) includes data rate shift and bit error rate, steps 315 and 325 , fig. 3).

It would have been obvious to the person of ordinary skill in the art at the time of the invention was made to have modified the capability of '977 in view of Jeyaseelan with the capability of wherein the trigger events include at least one of maximum data retry count is exceeded, maximum number of beacons missed is exceeded, data rate shift, and signal strength (Jeyaseelan teaches trigger event (roaming) includes data rate shift and bit error rate, as taught by Jeyaseelan. This could be implemented by wireless communication device of '977. '977 suggested the methods to determine events as to when the mobile wireless communication device should handover, refer to abstract . The motivation for using this capability was to improve quality of communication based on roaming, refer to abstract.

For claim 11, '977 in view of Jeyaseelan teaches all the limitations of subject matter , as applied to claims 1. In addition, Jeyaseelan teaches the following limitations:

wherein roaming is triggered when one of the trigger counters associated with the maximum data retry count is exceeded trigger event is equal to or exceeds the maximum data retry count trigger value, (steps 315, fig. 3).

Jeyaseelan teaches roaming when retries are high (exceeded) and roaming timer (counter) is exceeded, paragraphs 0025-0027).

It would have been obvious to the person of ordinary skill in the art at the time of the invention was made to have modified the capability of counter associated with the maximum data ---is exceeded, as taught by Jeyaseelan. This could be implemented by wireless communication device of '977. The motivation for using this capability was to allow the people on the move during changing conditions, refer to para: [0005].

For claim 12, '977 in view of Jeyaseelan teaches all the limitations of subject matter , as applied to claim 1,

'977 does not teach the following limitation, which is taught by Jeyaseelan, as follows:

wherein roaming is triggered when one of the trigger counters associated with the maximum number of beacons missed is exceeded trigger event is equal to or exceeds the maximum number of beacons missed trigger value (Jeyaseelan teaches roaming when beacons are missed and roaming timer set count is exceeded, steps 305, 310, paragraphs 0024-0025).

It would have been obvious to the person of ordinary skill in the art at the time of the invention to use the capability of wherein roaming is triggered when one of the trigger counters associated with the maximum number of beacons missed is exceeded trigger event is equal to or exceeds the maximum number of beacons missed trigger value, as taught by Jeyaseelan. This could be implemented by wireless communication device. Palmer suggested the methods to determine as to when the mobile wireless communication device should roam, refer to abstract col. 1 lines12-16. The motivation for using this capability was to allow the people on the move during changing conditions, col. 1 lines 19-20 and col. 2 lines 30-35 of Palmer.

For claim 13, '977 in view of Jeyaseelan teaches all the limitations of subject matter , as applied to claim 1. In addition, Jeyaseelan teaches the following limitations:

wherein roaming is triggered when one of the trigger values associated with the data rate shift trigger event is equal to or exceeds the maximum data rate shift threshold value. (refer to step 325 , fig. 3, and para: [0028])).

It would have been obvious to the person of ordinary skill in the art at the time of the invention was made to have modified the capability of '977 in view of Jeyaseelan with the capability of wherein roaming is triggered when one of the trigger values associated with the data rate shift trigger event is equal to or exceeds the maximum data rate shift threshold value, as taught by Jeyaseelan. This could be implemented by wireless communication device of '977. '977 suggested the methods to determine events as to when the mobile wireless communication device should handover, refer to abstract . The motivation for using this capability was to improve quality of communication based on roaming based on rate shift, refer to abstract.

For claim 15, '977 in view of Jeyaseelan teaches all the limitations of subject matter , as applied to claim 1, as above, In addition, '977 teaches the following limitations.

wherein detecting a speed of the network device is performed using a GPS ('977 teaches determining of speed using GPS chipset, para: [abstract])

For claim 19, '977 in view of Jeyaseelan teaches all the limitations of subject matter , as applied to claim 1, as above.

In addition, '977 teaches following limitations:

wherein when roaming is triggered, the network device is no longer within a coverage area of an Access Point servicing the network device, ('977 teaches , termination of running upon roaming outside coverage area of access point, the mobile terminal can no longer communicate that area through that particular access point, refer to paras: [0024-0026]).

For claim 35, '977 in view of Jeyaseelan teaches all the limitations of subject matter , as applied to claim 1, as above.

In addition, '977 teaches following limitations:

identifying one of the plurality of sets of threshold values that corresponds to a set of one or more speeds that includes the detected speed of the network device ('977 teaches handover event at a speed at predetermined level (first threshold or second threshold, refer to paras: [0037 and 0042]).

For claim 36, '977 in view of Jeyaseelan teaches all the limitations of subject matter , as applied to claim 1, as above.

In addition, '977 teaches following limitations:

wherein each of the threshold values corresponds to a different one of the trigger events.

('977 teaches, if either the speed and/or displacement of the device 306 do not exceed a first predetermined threshold or the strength of the WAN signal is unacceptable, at step 806, then the registration sequence is aborted (the unit stops running the WAN stack 510 and hardware

410, 412) at step 810 and the process is exited, resulting in a current and/or future calls

continuing to be placed via the WLAN system, refer to para:[0038]).

4.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over '977 in view of

Jeyaseelan and, further, in view of Naghian (US Pub. No. 2004/0077350), hereinafter, Naghian.

.

        For claim 3, '977 in view of Jeyaseelan teaches all the limitations of subject matter , as

applied to claim 1, as above, with the exception of the following limitations which are disclosed

by Naghian:

        wherein the network device is a Mobile Node supporting Mobile IP, (Naghian teaches ,

Mobile IP describes the basic operations needed for a mobile node to maintain its connectivity,

refer to paragraph 0002).

        It would have been obvious to the person of ordinary skill in the art at the time of the

invention was made to have modified '977 in view of Jeyaseelan with the capability of the

network device to have a Mobile Node supporting Mobile IP, as taught by Naghian. The

capability could be implemented in mobile device. The suggestion to use this capability in

changing environment of different standards, refer to Palmer's col. 3 lines 2-4. The motivation

for using this capability was to allow the people on the move during changing conditions during

handover, col. 1 lines 19-20 and col. 2 lines 30-35 of Palmer.

5.   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over '977 in view of

Jeyaseelan and, further, in view of Yamashita (US Pub. No. 2003/0064729), hereinafter,

Yamashita. .

For claim 8, '977 in view of Jeyaseelan teaches all the limitations of subject matter , as applied to claims 1, as above, with the exception of the following limitations which are disclosed by Yamashita.

wherein the trigger values decrease as the speed of the network device increases, (Yamashita teaches degradation of signal to noise ratio (trigger value for roaming) according to speed increase of mobile terminal (network device), refer to paragraph 0019).

It would have been obvious to the person of ordinary skill in the art at the time of the invention was made to have modified the capability of wherein the trigger values decrease as the speed of the network device increases as taught by Yamashita. The capability could be implemented in mobile device. The suggestion to use this capability in changing environment of different standards, refer to '977 's para: 0012. The motivation for using this capability was to allow the people on the move during changing conditions, para: 0012.

6.   Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over '977 in view of Jeyaseelan and, further, in view of Tsai et al (US Pub. No. 2003/0064727), hereinafter, Tsai. .

For claim 7, '977 in view of Jeyaseelan teaches all the limitations of subject matter , as applied to claim 1, as above, with the exception of the following limitations which are disclosed by Tsai.

wherein the rate at which the network device roams increases as the speed of the network device increases, (Tsai teaches increase in handover rate with the increase in speed of mobile station, refer to paragraph 0008).

It would have been obvious to the person of ordinary skill in the art at the time of the

invention was made to have modified '977 in view of Jeyaseelan's syetem with the capability of

wherein the rate at which the network device roams increases as the speed of the network device

increases, as taught by Tsai. The capability to request handover could be implemented in mobile

device. The suggestion to use this capability in changing environment of different standards,

refer to '977' paragraph [0004]. Motivation for roaming is to have seamless integration between

systems, refer to '977's para: [0004].

7.   Claims 16-18 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over

'977 in view of Jeyaseelan , as above, and, further, in view of Narayanan et al (US Pub. No.

2004/0229612), hereinafter, '612.

For claims 16 and 28, '977 in view of Jeyaseelan teaches all the limitations of subject

matter , as applied to claim 1, as above, with the exception of the following limitations which are

disclosed by '612.

registering with a Home Agent via a new Foreign Agent using a new Access Point when

roaming is triggered, wherein the Mobile Node is within a coverage area of the new Foreign

Agent and the new Access Point ('612 teaches mobile node registering with Home Agent via

Foreign Agent while within coverage area of Foreign Agent, refer to paragraph 0016). Note: FA

which is a router, communicates with HA via local B/S or Access Point.

It would have been obvious to the person of ordinary skill in the art at the time of the

invention to use the capability of registering with a Home Agent via a new Foreign Agent using

a new Access Point when roaming is triggered, wherein the Mobile Node is within a coverage

area of the new Foreign Agent and the new Access Point, as taught by '612. The capability to

request handover could be implemented in mobile device. The suggestion to use this capability

in changing environment of different standards, refer to abstract of '977. The motivation for

using this capability was to allow the people on the move and register with second wireless

communication system (which could be Home agent via foreign agent during changing

conditions, refer to [Abstract]) of '977).

     For claims 17 and 29, '977 in view of Jeyaseelan teaches all the limitations of subject

matter , as applied to claims 1 and 16 for claim 17; and claims 1 and 28 for claim 29

respectively, as above, with the exception of the following limitations which are disclosed by

'612.

     de-registering with the Home Agent via a new Foreign Agent using a new Access Point,

wherein the Mobile Node is no longer within a coverage area of the previous Foreign Agent.

('612 teaches mobile node registering with Home Agent via second Foreign Agent while moving

away from first foreign agent to second foreign agent (no longer within a coverage area of the

previous FA), refer to paragraph 0021 and step 216 in fig. 2. '612, further, teaches, home agent

refreshes the state when mobile node moves to second FA, in order to de-register from first

foreign agent, paragraph 0006)..

     It would have been obvious to the person of ordinary skill in the art at the time of the

invention to use the capability of de-registering with the Home Agent via a new Foreign Agent

using a new Access Point, wherein the Mobile Node is no longer within a coverage area of the

previous Foreign Agent, as taught by '612. The capability to request handover could be

implemented in mobile device. The motivation for using this capability was to allow the people

on the move and register with second wireless communication system (which could be Home

agent via foreign agent during changing conditions, refer to [Abstract]) of '977).

For claims 18 and 30, Palmer in view of Jeyaseelan teaches all the limitations of subject

matter , as applied to claim 1, as above, with the exception of the following limitations which are

disclosed by '612.

wherein the network device is a Mobile Node, and wherein when roaming is triggered,

the Mobile Node is no longer within a coverage area of a Foreign Agent via which the mobile

node has registered with its Home Agent, ('612 teaches on handoff to second foreign agent,

mobile node moves away from first foreign agent, where mobile node is registered with Home

agent, to second foreign agent and communication link with first foreign agent is no longer

operational, refer to paragraphs 0016-0018)..

It would have been obvious to the person of ordinary skill in the art at the time of the

invention to use the capability of wherein the network device is a Mobile Node, and wherein

when roaming is triggered, the Mobile Node is no longer within a coverage area of a Foreign

Agent via which the mobile node has registered with its Home Agent, as taught by '612. The

capability to request handover could be implemented in mobile device. The suggestion to use

this capability in changing environment of different standards, refer to abstract of '977. The

motivation for using this capability was to allow the people on the move and register with second

wireless communication system (which could be Home agent via foreign agent during changing

conditions, refer to [Abstract]) of '977).

8.   Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over '977 in view of

Jeyaseelan and, further, in view of Seo et al (US Pat. No 7106783), hereinafter, Seo.

For claim 22, '977 in view of Jeyaseelan teaches all the limitations of subject matter , as

applied to claim 21, as above, with the exception of the following limitations which are disclosed

by Seo.

multiplying the one or more trigger values by one or more multiplying factors, wherein

each of the multiplying factors corresponds to the speed of the network device.

(Seo teaches multiplying at high speed pilot symbols and control symbols by corresponding

weight (factor) to make handoff (trigger value event), refer to col. 3 lines 18-21) .

It would have been obvious to the person of ordinary skill in the art at the time of the

invention to use the capability of multiplying the one or more trigger values by one or more

multiplying factors, wherein each of the multiplying factors corresponds to the speed of the

network device., as taught by Seo. The capability to request handover could be implemented in

mobile device. The suggestion to use this capability in changing environment of different

standards, refer to abstract of '977. The motivation for using this capability was to allow the

people on the move during changing conditions, refer to fig. 3 of Jeyaseelan.

9.   Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over '977 in

view of Jeyaseelan and Seo and further, in view of Tiedemann, JR. et al (US 2006/0094460),

hereinafter, '460.

For claims 23-24, '977 in view of Jeyaseelan and Seo teaches all the limitations of subject matter , as applied to claim 21, as above, with the exception of the following limitations which are disclosed by '460.

(As recited by claim 23), wherein each of the multiplying factors decreases the one or more trigger values when the speed of the network device increases.

(As recited by claim 24), wherein each of the multiplying factors increases the one or more trigger values when the speed of the network device decreases.

('460 teaches change (either increase or decrease) in value with the change (either decrease or increase) in velocity (speed) of mobile station), refer to paragraph 0057) .

It would have been obvious to the person of ordinary skill in the art at the time of the invention to use the capability of wherein each of the multiplying factors decreases the one or more trigger values when the speed of the network device increases (see claim 23; and wherein each of the multiplying factors increases the one or more trigger values when the speed of the network device decreases (see claim 24), as taught by '460. The capabilities to request handover could be implemented in mobile device. The suggestion to use this capability in changing environment of different standards, refer to abstract of '977. The motivation for using this capability was to allow the people on the move during changing conditions, refer to fig. 3 of Jeyaseelan..

10.   Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over '977 in view of Jeyaseelan and Seo and further, in view of Murai (US 2005/0130662), hereinafter, Murai.

For claim 25, Palmer in view of Jeyaseelan and Seo teaches all the limitations of subject matter , as applied to claim 21, as above, with the exception of the following limitations which are disclosed by Murai.

ascertaining the multiplying factors corresponding to the speed of the network device. (Murai teaches determining (ascertaining) factors corresponding to the mobile station speed), refer to paragraph 0036) .

It would have been obvious to the person of ordinary skill in the art at the time of the invention to use the capability of ascertaining the multiplying factors corresponding to the speed of the network device, as taught by Murai. The capabilities to request handover could be implemented in mobile device. The suggestion to use this capability in changing environment of different standards, refer to abstract of '977. The motivation for using this capability was to allow the people on the move during changing conditions, refer to fig. 3 of Jeyaseelan.

11.   Claims 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over '977 in view of Jeyaseelan and Seo and, further, in view of Kalhan et al (US Pub. No2004/0116133), hereinafter, Kalhan.

For claim 26, '977 in view of Jeyaseelan and Seo teaches all the limitations of subject matter , as applied to claims 21 and 22, as above, with the exception of the following limitations which are disclosed by Kalhan.

wherein multiplying comprises: multiplying the one or more trigger values by a single multiplying factor, (Kalhan teaches , multiplying power level sample 304, fig. 6 (indicator or

trigger value, as to when to exit coverage area, refer to abstract and paragraph 0064) by

adjustment factor and to send exit control signal, refer to paragraph 0066) .

It would have been obvious to the person of ordinary skill in the art at the time of the

invention to use the capability of wherein multiplying comprises: multiplying the one or more

trigger values by a single multiplying factor, as taught by Kalhan. The capability to request

handover could be implemented in mobile device. The suggestion to use this capability in

changing environment of different standards, refer to abstract of '977. The motivation for using

this capability was to allow the people on the move during changing conditions, refer to fig. 3 of

Jeyaseelan.

For claim 27, '977 in view of Jeyaseelan and Seo teaches all the limitations of subject

matter , as applied to claims 21 and 22, as above, with the exception of the following limitations

which are disclosed by Kalhan.

wherein multiplying comprises: multiplying each of the trigger values by a different

multiplying factor, wherein the multiplying factor corresponds to the trigger event, (Kalhan

teaches , multiplying power level sample 304, fig. 6 (indicator or trigger value, as to when to exit

coverage area, refer to abstract and paragraph 0064) by adjustment factor and to send exit control

signal (Trigger event), refer to paragraph 0066) .

It would have been obvious to the person of ordinary skill in the art at the time of the

invention to use the capability of wherein multiplying comprises: multiplying each of the trigger

values by a different multiplying factor, wherein the multiplying factor corresponds to the trigger

event r, as taught by Kalhan. The capability to request handover could be implemented in mobile

device. The suggestion to use this capability in changing environment of different standards,

refer to abstract of '977. The motivation for using this capability was to allow the people on the

move during changing conditions, refer to fig. 3 of Jeyaseelan.

Response to Arguments

12.   Applicant's arguments filed 6/4/2010 have been fully considered but are not persuasive.

Applicant's argument

        Applicant argues that With respect to Dorenbosch, the Examiner asserts:

        ('977 teaches detecting a triggering event, which is the detection of a wireless local area

network border cell (210), fig. 2, or a degradation in signal quality (same as ascertaining

threshold value, such as signal strength or degradation of quality), refer to para: [0009] and

abstract); wherein one or more threshold values have been configured at the network device ('977

teaches, if the speed and/or displacement of the device exceeds a predetermined threshold

(predetermined threshold value is same as configured at the network device), refer to para:

[0009]); (It is important to note that this routine is executed periodically which obviously

generates profile of values corresponding to speed and events, refer to para: [0037]. '977, further,

teaches each of threshold values corresponding to different sets of speeds, and triggering events,

refer to fig. 8 step 812 and fig. 9 step 912).

        Paragraph [0037] cited by the Examiner discloses determining "if the speed and/or

displacement information exceeds a predetermined threshold." The Examiner further refers to

812 of FIG. 8 and 912 of FIG. 9, which determine whether "speed/displacement greater than

second threshold" if the speed and/or displacement of the device exceeds a first predetermined

threshold and the signal strength of the WAN signal is still good. See e.g., paragraph [0038].

Thus, it appears that the "threshold" of Dorenbosch is merely a speed or "displacement." Nothing

in Dorenbosch discloses or suggests that each of the sets of threshold values corresponds to a

different set of one or more speeds of a plurality of speeds, where the threshold values include

maximum data retry count, maximum number of beacons missed, maximum data rate shift, or

signal strength.

Nothing in the cited references, separately or in combination, discloses or suggests that

threshold values such as maximum data retry count, maximum number of beacons missed,

maximum data rate shift, or signal strength may vary according to the speed of a mobile device.

In view of the deficiencies of the primary references discussed above, Applicant respectfully

asserts that the combination of the cited references would fail to operate as claimed.

Moreover, claims 21 and 31 recite, "modifying one or more threshold values" in a profile, as

claimed. However, nothing in Dorenbosch or Jeyaseelan, separately or in combination, discloses

or suggests modifying one or more threshold values in a profile configured at the network

device, as claimed.

Examiner's response

In response, Examiner respectfully states that Claims 20 31 has been cancelled by

Applicant, refer to 'Remarks', page 10 second paragraph. Therefore, arguments by Applicant

regarding claims 20 and 31are moot.

Further, Examiner, respectfully states that ('977 teaches detecting a triggering event,

which is the detection of a wireless local area network border cell (210), fig. 2, or a degradation

in signal quality (same as ascertaining threshold value, such as signal strength or degradation of

quality), refer to para: [0009] and abstract); wherein one or more threshold values have been

configured at the network device ('977 teaches, if the speed and/or displacement of the device

exceeds a predetermined threshold (predetermined threshold value is same as configured at the

network device), refer to para: [0009]); (It is important to note that this routine is executed

periodically which obviously generates and updates profile of values successively corresponding

to speed and events, refer to para: [0037]. '977, further, teaches each of threshold values

corresponding to different sets of speeds, and triggering events, refer to fig. 8 step 812 and fig. 9

step 912. This reds on limitation in claims 1, 32-34.

Prior Art Jeyaseelan et al (US Pub. No. 2005/0070275) discloses threshold values such as

at least one of maximum data retry count (step 315, fig. 3), maximum number of beacons missed

(step 305, fig. 3), maximum data rate shift (steps 325 and 335, fig. 3), or signal strength (step

345, fig. 3) may vary according to the speed of a mobile device, refer to fig. 3.

In light of above explanation, all arguments have been responded and are not persuasive.

13.   THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy

as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR

1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

will the statutory period for reply expire later than SIX MONTHS from the mailing date of this

final action.

Conclusion

14.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to INDER P. MEHRA whose telephone number is (571)272-3170.

The examiner can normally be reached on Monday through Friday from 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Dwayne Bost can be reached on 571-272-7023. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dwayne D. Bost/
Supervisory Patent Examiner,
Art Unit 2617

/Inder P Mehra/
Examiner, Art Unit 2617